

**Application No.: 10/614,023**

**REMARKS**

Claims 1 and 2 are pending, with claim 1 being independent. The Examiner has maintained the rejection of claim 1 under 35 U.S.C. § 103 as being unpatentable over JP '518 in view of JP '612, and the Examiner's basis for doing so is outlined on the continuation page of the outstanding Advisory Action. Specifically, the Examiner maintains the pending rejections based on the allegation that "it is unclear what was the other 25wt% of R8 and R9 ... [t]herefore no unexpected results have been demonstrated."

In order to expedite prosecution, Applicants' representative contacted Examiner Weiner to better understand her position. During the telephone discussion, the Examiner indicated that the assertion in the Advisory Action was related to Applicants' arguments on page 3, second paragraph of the response filed on March 9, 2006 directed to Comparative Examples R8 and R9. In particular, the Examiner asserted that Table 1 on page 23 of Applicants' specification does not identify the other 25% of content in Comparative Examples R8 and R9 (75%=MCF).

However, it is respectfully submitted that Table 1 suggests that the "0" in the box to the left of "75%" (MCF) for R8 and R9 is related to the amount of "spherical graphite," whereas in Comparative Examples R8 and R9 the other 25% is flake natural graphite and flake artificial graphite, respectively, as described in the second column. Indeed, this is one of the important points in evidencing the new/unexpected results of the present invention over the cited prior art, and it is respectfully submitted that the Examiner's confusion in that regard may have lead to the Examiner's conclusion that new/unexpected results were not shown. Accordingly, reconsideration of the arguments presented in the response filed March 9, 2006 in view of the aforementioned clarification is respectfully requested.

Furthermore, it is respectfully submitted that neither JP '518 nor JP '612, alone or in combination, disclose or suggest the claimed combination. Claim 1 recites in pertinent part, "the

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amount of said graphitized carbon fiber (B) is not less than 60% by weight and not more than 80% by weight of whole of said carbonaceous material.” In contrast, Examples 12-13 of JP ‘518, which the Examiner necessarily relies on in the pending rejection due to the 1.6g/cm<sup>3</sup> carbon density, have carbon contents of 90% by weight which is outside of the claimed range. Moreover, it is respectfully submitted that the claimed range provides new/unexpected results in the recited *combination* relative to the cited prior art. Indeed, a review of examples C1-C6 in Applicants’ specification evidences the improved results of the combination when carbon content is set at the claimed range in comparison to combinations with carbon content outside of the claimed range.

Moreover, JP ‘518 effectively teaches away from the claimed range of carbon content in that the capacity retention rate decreases when the amount of carbon fiber is in the range of 60-80% (*see* Examples 7-10 of JP ‘518) as compared to outside of the claimed range (*see* Examples 1-6 and 11-13). Accordingly, JP ‘518 expressly suggests the desirability of a carbon content outside of the claimed range for realizing its intended purpose. In this regard, it should be noted that JP ‘518 is directed to improving the capacity retention rate whereas one aspect of the present application is directed to evaluating the high rate discharge characteristic. As such, JP ‘518 would lead one of ordinary skill in the art away from the claimed range, in that JP ‘518 suggests using a carbon fiber content of 90% rather than 60-80% in order to improve the capacity retention rate per JP ‘518’s disclosed objective. In contrast, as addressed only by Applicants of the present application, a well-balanced battery in which the novel combination of an unexpectedly improved high rate charge/discharge characteristic (e.g., 2C/0.2C) and Irreversible Capacity (Re) can be obtained when the carbon content is 60-80% by weight in combination with the other features recited in claim 1. There is no motivation from the prior art to provide a

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carbon fiber content of 60-80% in combination with the other features (e.g., 1.6g/cm<sup>3</sup> carbon density, etc.), as JP '518 is silent as to improving the high rate charge/discharge characteristic and is instead concerned with the capacity retention rate in which a carbon content of 90% is expressly desired as disclosed by JP '518 (while a carbon content of 60-80% is not desired for achieving the disclosed objective of JP '518).

The Examiner is directed to MPEP § 2143.03 under the section entitled "All Claim Limitations Must Be Taught or Suggested", which sets forth the applicable standard for establishing obviousness under § 103:

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. (citing *In re Royka*, 180 USPQ 580 (CCPA 1974)).

In the instant case, the pending rejection does not "establish *prima facie* obviousness of [the] claimed invention" as recited in claim 1 because the proposed combination fails the "all the claim limitations" standard required under § 103.

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claim 1 is patentable for the reasons set forth above, it is respectfully submitted that all claims dependent thereon are also patentable. In addition, it is respectfully submitted that the dependent claims are patentable based on their own merits by adding novel and non-obvious features to the combination.

Based on the foregoing, it is respectfully submitted that all pending claims are patentable over the cited prior art. Accordingly, it is respectfully requested that the rejections under 35 U.S.C. § 103 be withdrawn.

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**CONCLUSION**

Having fully responded to all matters raised in the Office Action, Applicants submit that all claims are in condition for allowance, an indication for which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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